REMARKS

Upon entry of the instant amendment, claims 1-21 will remain pending in the application, with claims 1-6 and 13-21 standing ready for further action on the merits and claims 7-12 being withdrawn from consideration based on an earlier restriction requirement of the Examiner.

In the instant amendment claims 1, 5 and 20 are amended, and new claim 21 is added. In claim 1 as currently amended there is recited a "*method for preparing a thin film of metal oxide containing only one metal element on a substrate....*" In claim 5, the metal "lanthanum" is deleted from the recited Markush group, and claim 21 is added to recite the same. Claim 20 has been amended to provide proper antecedent basis for the term "stainless steel" that is used therein.

Accordingly, entry of the instant amendment is respectfully requested at present.

Incorporation of Remarks from prior Reply

On September 7, 2005 a reply was filed in the matter of the instant application. Remarks set forth at pages 9-14 of the reply are incorporated herein in their entirety, as they are submitted to be relevant to a consideration of the patentability of the instantly amended claims over the cited art of record, including Qiu US '849 (U.S. Patent 6,419,849) and Lee US '092 (U.S. Patent 5,763,092). The Examiner is respectfully requested to review said remarks at this time, as they remain material to a consideration of the instant invention as recited in pending claims 1-6 and 13-21 that are under consideration at present.

Claim Rejections – 35 USC § 112

Claim 20 has been rejected under the provisions of 35 USC § 112, second paragraph, for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as his own. Reconsideration and withdraw of the rejection is respectfully requested based on the amendment made herein to claim 20. It is submitted that proper antecedent basis now occurs in claim 20 for the stainless steel container.

Claim Rejections – 35 USC § 102(b) & § 103(a)

Claims 1-3, 5, 13 and 15 have been rejected under 35 USC § 102(b) as being anticipated by Qiu US '849 (U.S. Patent 6,419,849).

Claim 6 has been rejected under the provisions of 35 USC § 103(a) as being rendered obvious by Qiu US '849.

Claim 4 has been rejected under the provisions of 35 USC § 103(a) as being rendered obvious by Qiu US '849 further in view of Lee US '092 (U.S. Patent 5,763,092).

Claim 14 has been rejected under the provisions of 35 USC § 103(a) as being rendered obvious by Qiu US '849 further in view of Yonezawa et al. US '630 (U.S. Patent 3,963,630).

Claims 16 and 18 have been rejected under the provisions of 35 USC § 103(a) as being rendered obvious by Qiu US '849 further in view of Ishizawa et al. (*Jpn. J. Appl. Phys.* , 29, pp. 2467-2472).

Claim 17 has been rejected under the provisions of 35 USC § 103(a) as being rendered obvious by Qiu US '849 further in view of Borodin et al. US '744 (U.S. Patent 5,069,744).

Claims 18-19 have been rejected under the provisions of 35 USC § 103(a) as being rendered obvious by Qiu US '849 further in view of Naito et al. US '368 (U.S. Patent 5,790,368).

Claim 20 has been rejected under the provisions of 35 USC § 103(a) as being rendered obvious by Qiu US '849 in view of Ishizawa et al., further in view of Yonezawa et al. US '630.

Reconsideration and withdraw of each of the above rejections is respectfully requested based on the following considerations.

Legal Standard for Determining Anticipation

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Legal Standard for Determining Prima Facie Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet,* 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

"In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the

proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab,* 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee,* 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Present Invention And Its Advantages

The present invention pertains to a method for applying a thin film of metal oxide containing *only* one metal element on a substrate. This one metal can be hafnium, zirconium, praseodymium or aluminum (claim 5) or lanthanum (claim 21).

Figure 2 of the present application depicts an apparatus for carrying out the process of the present invention, and this apparatus includes a container 4 that contains a lidded beaker 12. Placing deionized water 20 in the container 4 in a space outside of the beaker 12 permits a low temperature (claim 2) hydrothermal treatment at 15 atm (claim 6).

The present invention has many embodiments, and a typical embodiment can be found in claim 1:

> *1. A method for preparing a thin film of metal oxide containing only one metal element on a substrate, comprising the steps of:*
>
> *applying a sol-gel solution containing said one metal element to a surface of said substrate;*
>
> *drying said sol-gel solution to prepare a dried gel film on said substrate;*
>
> *soaking said dried gel film on said substrate in an alkaline aqueous solution containing said metal element in a container;*
>
> *sealing said container; and*
>
> *performing hydrothermal treatment for said dried gel film on said substrate in the sealed container to prepare said thin film of metal oxide on said substrate. (emphasis added)*

Distinctions Over the Cited Art

As indicated in the earlier reply of September 7, 2005, the cited Qiu US '849 and Lee US '092 references of record are incapable of properly anticipating and/or rendering obvious the present invention. This is particularly true, where the instant invention as claimed, positively recites in independent claim 1 a "*method for preparing a thin film of metal oxide containing only one metal element on a substrate...*"

Accordingly, it is submitted that no teaching or disclosure is provided in the cited Qiu US '894 reference of record, or any of the remaining references of record that provides for the instant invention as claimed including all of its limitations. It is further submitted that the cited art of record, whether considered singularly or in combination also fails to provide any motivation to those of ordinary skill in the art that would allow them to arrive at the instant

invention as claimed. Thus, presently pending claims 1-6 and 13-21 under consideration at present are allowed and patentable over the cited art of record. Any contentions of the USPTO to the contrary must be reconsidered.

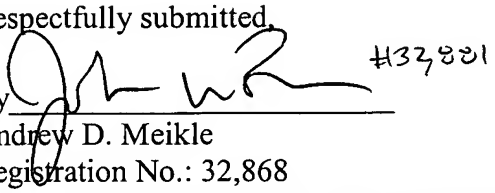
Conclusion

Based on the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance, clearly indicating that each of instantly pending claims 1-6 and 13-21, which are under consideration at present, are allowed and patentable under the provisions of title 35 of the United States Code.

Should the Examiner have any questions concerning the instant reply, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated.

Dated: April 10, 2006

Respectfully submitted,



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